



Digital Skills Of OTM Students In Rivers State Owned Polytechnics As A Solution To Nigerian Economic Challenges

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ABSTRACT

This study adopted a descriptive survey research design on Digital Skills Of OTM Students In Rivers State Owned Polytechnic As Solution To Nigerian Economic Challenges. The population was 470 with a sample size of 141 OTM students using proportionate stratified random sampling technique. A structured instrument of 5-point scale was adopted. 141 copies of questionnaire were administered and 135 successfully retrieved. Mean and standard deviation were used to answer research questions and measure the spread of students' opinions, while t-test was used to test the null hypotheses, and data analyzed using Statistical Package for Social Sciences (SPSS) version 23. Findings of the study revealed that ICTs and problem-solving skills of OTM students serve as a high solution to Nigerian economic challenges of unemployment and poverty through generating employment and wealth creation. Among other things, it was recommended that OTM lecturers should lay more emphasis on practical soft skills by giving OTM students ICTs and problems to solve and taking them on field trips to industries to gain firsthand experience of how job functions are performed. This will give them added advantage in the labour market when they embark the search for jobs to enable them gain employment and create wealth.

Keywords: digital skills, OTM students, Rivers State Owned Polytechnic, solution, Nigerian economic challenges

INTRODUCTION

Polytechnic education is one of the tertiary levels of education given after secondary school. It is the two tier programme of studies consisting of National Diploma (ND) and Higher National Diploma (HND) with one year Industrial Experience (IT) as one of the pre-requisites for entry into HND programme (National Board of Technical Education (NBTE, 2009). The main objective of polytechnic education is to provide technical knowledge and skills necessary for occupational development in Nigeria. Office Technology and Management (OTM) programme was introduced in Nigerian Polytechnics in November 2004 by NBTE to replace the Secretarial Studies curriculum because of the emergence of computerization in the educational sector. The review was necessitated because skills previously acquired in the course of

study were inadequate for OTM graduates to adjust to the rapidly changing workplaces (Baba & Akaraha, 2012).

OTM programme is designed to offer students training in different skills for employment in various fields of endeavour. Moreover, in these modern economies, continuous innovations have led to major transformations in workplaces, giving rise to pervasive skill gaps and skill mismatches. In order to bridge the skill gaps, OTM programme is investing significant effort and resources in training of students in different skills taught in OTM programme include soft skills.

Digital skills often referred to as generic, non-technical, or employability skills are skills that facilitate the creative and productive application of disciplinary skills and knowledge in the workplaces (Jackson & Chapman, 2012). Soft skills are the traits and abilities of attitude and behaviour rather than of knowledge or technical aptitude. Soft skills include ICTs, problem-solving, critical thinking, teamwork, leadership, conflict management, and ethical skills. Self-improvement, interpersonal relations, communications, career preparation, leadership, teamwork, self-discipline, self-confidence, good work ethic, and showing courtesy are viewed as soft skills. Additionally, listed soft skills to include honesty, team building, problem solving, critical thinking, and communication skills. Abdullah, Muhammad and Nasir (2019) stated that digital skills are crucial skills required by future workplace in the corporate world. Acquisition of these skills could influence employment prospect of Office Technology and Management students for wealth creation. ICTs skills have become more pervasive in society that led to a concern about the need for ICT skills in everyday life of learners. These include the use of variety of ICT tools such as email, v-learning platforms, desktop conferencing, online programmes such as web, video conferencing, social media platforms, web cam, internet, all hardware and software which impart the necessary ICT skills to students for gainful employment after graduation,

Problem-solving skills can influence employment prospect of OTM students. Problem solving skills involve the ability to find the cause of a problem, understand it, and establish a solution to it. The ability to solve problems in a range of learning context is essential for the development of knowledge, understanding and performance in the labour market (Griffin & Annulis, 2013). They encompass flexibility, adaptability, cooperativeness, and respectfulness. Ann-Marie (2015) stressed the need to equip students with teamwork skills because employers are seeking to recruit graduates who pay due attention to relations with co-workers and superiors.

In polytechnic education, students seek admission with the expectation that they will be taught the requisite skills that will enhance their employment prospect. However, current marketplaces demand more specific 'digital skills' from graduates to cope with the stress and help them meet the work challenges in an organization when employed. Supporting this view point, Crowne (2019) noted that the typical OTM course is designed to impart a large dose of quantitative management skills and techniques, but employers, and even students are increasingly demanding digital skills. OTM programme produces many graduates annually. Almost half of them become frustrated or desolate because they cannot secure jobs in the labour market (Kelebogile, 2014). Similarly, in Nigeria, given the country's slow and unsteady economic growth, there is high and increasing level of unemployment and poverty especially among the youths that many graduates find it almost impossible to be gainfully employed. It is no longer a problem for only those with low levels of education even polytechnic graduates struggle to find employment causing economic challenges (Kelebogile, 2014).

Recent shifts in education and labour market policies have resulted in OTM programme being placed under increasing pressure to produce employable graduates. However, contention exists regarding exactly what constitutes employability and which student attributes can foster employability among students. In support of this view point, Mehrotra and Elias (2017) stated that modern employment wants students who are primed for work, able to communicate, share skills and appreciate their place in a wider organization and its business. Students on graduation want jobs that exercise their abilities, confer status and provide commensurate pay as well as a route for career development. For this reason, it is important for OTM students to have extra skills rather than academic knowledge. The employers also perceive that students

are often not prepared to face the workplace and expect tertiary institutions (polytechnics inclusive) to produce more employable graduates (Spowart, 2011).

In the polytechnics, OTM students can improve their digital skill before facing a real career after finishing their study if they understand the roles of these skills in their employment and wealth creation. Moreover, unemployment and poverty that are some of the economic challenges among Nigerian graduates can be overcome by acquiring digital skills. According to Mitchell in Abdullah, Muhammad and Nasir (2019), employers highlighted digital skills as significant skills for modern workplace and recommended their integration into business education curriculum. However, the concern in this study is whether OTM students value these digital skills for future employment and wealth creation. As reported by Abdullah, Muhammad and Nasir (2019), students see the nature and relevance of soft skills differently. Students are either unaware of the importance of soft skills or they undermine the influence of certain digital skills to their employment prospects.

Wickramasinghe and Perera (2010) found that gender of the students may also influence the types of soft skills that are provided to them. This is because the priorities given to different types of skills vary in relation to the gender of the students. Wickramasinghe and Perera posited that overall, females students place a stronger emphasis than males on most types of soft skills with the exception of oral communication skills. It is against this background that this study aims to explore "Digital Skills Of OTM Students In Rivers State Owned Polytechnic As Solution To Nigerian Economic Challenges"

Statement of the problem

The curriculum of OTM programme is geared towards equipping students with broader requisite skill attributes, such as ICTs, problem-solving, team-working, critical thinking communication and leadership employment on graduation. Similarly, students seek admission in OTM programme in polytechnics in Nigeria with the hope that skills acquired will enhance their chances of securing employment after graduation. Admittedly, OTM students on graduation do suffer labour market discriminations in areas of administrative, banking and financial institutions among others in Nigeria. In view of this, OTM curriculum seems to be inadequate and has very little capacity to develop students' digital skills for job opportunities in various fields of endeavour. Additionally, high unemployment rates among OTM graduates have led employers and OTM students to question the kind of skills they are being taught.

The problem of this study is that, the new OTM programme has incorporated range of soft skills in its curriculum to meet the current employment needs. However, unemployment rates and poverty among its graduates suggests that OTM students on graduation simply lack the digital skills required for being outstanding in the workplace where employers are looking for well rounded employees, instead of the traditional graduates with only basic technical knowledge.

It could be deduced from this, that, OTM students in polytechnics are not been adequately equipped with digital skills. Hence, the need to examine Digital Skills Of OTM Students In Rivers State Owned Polytechnic As Solution To Nigerian Economic Challenges

Objective of the Study

The main objective of this study is to ascertain Digital Skills Of OTM Students In Rivers State Owned Polytechnic As Solution To Nigerian Economic Challenges. Specifically, the study seeks to find out:

1. How ICTs skills of OTM students serve as solution to Nigerian economic challenge of unemployment
2. How Problem-solving skills of OTM students serve as solution to Nigerian economic challenge of poverty

Research Questions

The following research questions will guide this study:

1. How does ICTs skills of OTM students serve as solution to Nigerian economic challenge of unemployment?
2. How does problem-solving skills of OTM students serve as solution to Nigerian economic challenge of poverty?

Hypotheses

The following null hypotheses was tested at 0.05 level of significance:

1. Male and female OTM students do not differ significantly in mean ratings on how their ICTs skills serve as solution to Nigerian economic challenge of unemployment.
2. There is no significant difference in the mean ratings of male and female students on how problem-solving skills of OTM students serve as solution to Nigerian economic challenge of poverty.

Review of related literature

ICTs skills of OTM students as a solution to Nigerian economic challenge of unemployment

Information and communication technology (ICT) has become a household term globally and has brought radical changes in the way people live, learn, work and do business. Obviously, the last decade or two have witnessed tremendous changes in the ways business and organizations operate due to the emergence of ICT. It plays very vital roles in the social, political and economic life of every nation because it makes information collection, processing, dissemination and storage very fast, easy and efficient (Ezenwafor, 2012). ICT has brought a lot of blessings to business education graduates in the area of job creation for self employment.

Entrepreneurs can now stay in Nigeria and order for goods abroad and make payments through the computer (online shopping).

They can also learn how to set up a business enterprise by accessing information which abounds on the internet. They now talk about electronic business (e-business) and electronic commerce (e-commerce).

Requisite ICTs skill for entrepreneurship to solve problem unemployment as a challenge of Nigerian economy include computer skills with ability to start up, log off or short-down a computer system and its peripherals, ability to key in data or create documents, ability to use text editing and layout, ability to use different packages like Microsoft Word, Excel, Corel Draw, ability to use borders in designing and decorating a typed document, ability to copy data, paste or insert in another location among others. Desktop skills with ability to open a desktop publishing environment, ability to identify and use documents, format existing ones in the system to prepare reports, memos, invoices and letters. Some spreadsheet competencies are ability to identify and open a spreadsheet environment, ability to key in figures in table rows, columns, insert additional rows and delete where necessary, ability to identify cells, arrange, rearrange, name or rename a cell,.

Accordingly, Okoro (2013) ICT skills that should be possessed by tertiary institutions graduates to include: Basic information systems concepts about components, operations, managerial and strategic roles of information systems, basic communication systems concepts, characteristics of channels of communication, types of Networks areas covered, communication media travel paths, communication processes within a network, communication methods, communication service providers network and ownership, major concepts in technology, issues on information technology, development concepts hardware, software, telecommunication, and database processing technologies for employment generation. Internet services are integral part of information and communication technology (ICT). Therefore, element of internet skills is very relevant in OTM curriculum.

In support of this, Okoro (2013) identified relevant internet skills/- competencies such as: knowledge that the internet is a world-wide assemblage of interconnected computer networks connecting all manners of private, commercial, government and academic network including a growing number of home computers. Skill in using internet services such as e-mail, File Transfer Protocol (FTP), World Wide Web, ecommerce, internet phone, telnet, internet relay chart, electronic data interchange. Others are ability to connect to the internet, skill in using internet equipment such as the computer system, telephone line, modem, internet account and power supply, skill in internet browsing, knowledge of the vast benefits of the internet as a vast library, storing latest information use for marketing.

Knowledge of available internet service as well as their application and operation such as e-mail, ecommerce, e-banking, e-marketing, newsgroup/- Usenet, internet relay chart, worldwide web (www),

knowledge of internet service providers, and knowledge of data security, protecting private information against unauthorized access and modification and other protection techniques such as the use of passwords. ICT skills that are required for OTM graduates for successful entrepreneurship: Knowledge to send and receive e-mail, knowledge to send and receive fax messages, knowledge in using collating machine, ability to create agenda using contra vision electronic software.

Others are skills in producing accounting jobs using spreadsheet software, knowledge to receive vocal messages using the internet, and skills in using tele/video conferencing. Others are skills in conducting research using the internet, ability to merge mails by adding, amending and deleting, and skills in editing text on the screen by inserting materials to solve Nigeria economic problem of unemployment and create employment with employability skills.

Problem-solving skills of OTM students as a solution to Nigerian economic challenge of poverty

Problem solving refers to finding a way where no way is known, off-hand out of a difficulty around an obstacle. Problem solving is a cognitive processing directed at achieving a goal when no solution is obvious to the problem solver. Problem arises when an individual has a goal but does not know how this goal is to be reached. Problem solving skills refer to the ability to find the cause of a problem, understanding it, and establishing a solution to it (Kar, 2011). Problem solving skills are demonstrated in the comprehensive process of identifying a problem, generating and implementing solutions, and the assessment of the results (Ann-Marie, 2015). Students and employers consider problem solving skills as important employability skills and by so doing one earn income and create wealth that lift one from poverty. Problem solving skills were the second highest ranked soft skills that technology students needed for successful postsecondary level, as these skills were integral to careers in technology and engineering enable learners to create wealth. Problem solving skills represented one of the generic skills that enhance graduates' employability, employment and further noted that this perspective was a growing trend in higher education for poverty reduction.

Cigar (2017) stated that it is common knowledge that business organizations are always saddled with solving their business problems to achieve organizational goals. The OTM students need problem-solving skills for efficient career after graduation to generate wealth. Problem-solving skills are core employability skills that are practical, logical and result-oriented.

These skills involve recognizing problems, devising and implementing plan of actions, specifying goals and constraints, generating alternatives, evaluating and choosing best alternatives (Cigar, 2017). The essence of problem-solving skill lies in the discovery of rules or principles for the efficient generation and organization of new ideas and learning techniques to apply in solving problems of business organizations which later earner learners income and reduce poverty. The skills do help in analyzing problems to give useful information to management and other stakeholders.

Many disciplines, sometimes with different perspectives, and often with different terminologies, for example, it is a mental process in psychology, a computerized process in computer science, an emotional intelligence in sociology. It is problem orientation, motivation, attitudes and effective process in neurological sciences, and diagnosis and treatment in medical sciences. They all point to understanding and fixing a problem. Problem-solving skills consist in using generic or ad hoc method in an orderly manner for finding solutions to problems. Problem-solving is a key skill, and it is one that can make a huge difference to one's career with great wealth generation. With these steps, the OTM students would be able to handle tough job problems in a wise and positive way to create wealth. The OTM students need problem-solving skills to apply in the business environment to solve company accounting problems upon graduation. Students should learn and acquire problem-solving skills because employers will expect them to solve company problems using scientific analytical techniques. Cigar (2017) outlined problem-solving skills as ability to:

- Identify the problem that requires research, for example a business issue, a feasibility study and a product evaluation,
- Investigate the issues associated with the problem,

- Collect primary data (interviews, surveys, observations), and secondary data (printed material, internet information),
- Evaluate alternative solution and,
- Determine the most appropriate solution.

Accordingly, problem solving skills have always been important in many professions. Problem solving skills involve the ability to find the cause of a problem, understand it, and establish a solution to it (Kar, 2011). Good problem solving skills empower students in their educational, professional, and personal lives. Nationally and internationally, there is a growing recognition that if education is to produce skilled thinkers and innovators in a fast-changing global economy, problem solving skills are more important than ever.

The ability to solve problems in a range of learning contexts that is essential for the development of knowledge, understanding and performing in the labour market to create wealth as a solution to Nigeria economic problem of poverty.

METHOD

This study adopted a descriptive survey research design. The survey research design was deemed appropriate for this study since it sought to ascertain the views and opinions of students on Digital Skills Of OTM Students In Rivers State Owned Polytechnic As Solution To Nigerian Economic Challenges. The population was 470, which consisted of students in OTM Department in the two state owned Polytechnics in Rivers State. Captain Elechi Amadi Polytechnic has 190 ND I & NDII students (Stream A 85 and Stream B 105), while Ken Saro-Wiwa Polytechnic, Bori has 280 HND I & HND II students (HND 1 130 and HNDII 150) in the OTM Department. The population distribution is presented in Appendix A. The sample size for this study was 141 students of OTM department in the two polytechnics in Rivers State. The sample size was determined using proportionate stratified random sampling technique based on 30 percent of the total population. Captain Elechi Amadi Polytechnic has 57 students and Ken Sarowiwa Polytechnic has 84 students. According to Brumeister and Aitken (2012), 30 percent sample size from a large population distribution of above 100 respondents is considered appropriate representative of the entire population. The instrument for data collection is a structured questionnaire entitled "Digital Skills Of OTM Students In Rivers State Owned Polytechnic As Solution To Nigerian Economic Challenges"

The instrument was a five points scale with the following options: Very High Solution (VHS) -5, High Solution (HS) - 4, Moderate Solution (MS) - 3, Low Solution (LS) - 2 and Very Low Solution (VLS) -1. The drafted copies of the questionnaire were subjected to face and content validity by three experts of OTM lecturers from Captain Elechi Amadi Polytechnic, their modifications and inputs formed the validity.

The reliability of the instrument was established by administering 20 copies of the instrument to OTM lecturers and students in polytechnics in Abia State who are not part of the study population. Data collected were analyzed using Cronbach Alpha which yielded values of 0.78, 0.83, 0.87, 0.91 and 0.82 respectively; while an overall coefficient value of 0.82 was obtained. The researcher personally administered 141 copies of the questionnaire to the respondents with the help of three research assistants who were adequately briefed on the modalities for administration and collection of the questionnaire and 135 copies were successfully retrieved.

On-the-spot distribution and collection of the questionnaire was adopted to ensure high response rate but those who could not meet up were re-visited on agreed date for retrieval. Mean and standard deviation were used to answer research questions and determine the homogeneity in opinions of the respondents. The decision on the questionnaire items and the research questions was based on mean ratings of each item relative to real limits of numbers as shown below:

Response	Rating Scale	Real Limit of Numbers
Very High Solution	5	4.50 – 5.00
High Solution	4	3.50 – 4.49
Moderate Solution	3	2.50 – 3.49
Low Solution	2	1.50 – 2.49
Very Low Solution	1	1.00 – 1.49

T-test was used to test the null hypotheses at 0.05 level of significance. A null hypothesis was rejected where the p-value is less than the significant value. Otherwise, the null hypothesis was accepted. The data analysis was carried out using Statistical Package for Social Sciences (SPSS) version 23.

RESULT PRESENTATION, ANALYSIS AND DISCUSSION

Research Question 1: *How does ICTs skills of OTM students serve as solution to Nigerian economic challenge of unemployment?*

Table 1: Respondents’ mean ratings on how ICTs skills of OTM students serve as solution to Nigerian economic challenge of unemployment N =135

S/N	ICT Competencies	\bar{X}	SD	Remarks
1	Create, format, save and print business documents from the computer	4.64	.48	Very High Solution
2	Retrieve saved documents in the computer	3.64	.50	High Solution
3	Protect documents with password	3.68	.31	High Solution
4	Use software that adapts to customers’ needs	3.53	.56	High Solution
5	Browse and download information from the internet	4.57	.50	Very High Solution
6	Access the internet through mobile phones	3.70	.46	High Solution
7	Create product awareness using internet	3.62	.49	High Solution
8	Use internet for e-mail and communication	4.55	.54	Very High Solution
9	Produce accounting jobs using spreadsheet software	3.30	.49	Moderate Solution
10	Conduct market research using the internet	3.44	.51	Moderate Solution
Cluster Mean		3.86		

Table 1 indicates that items numbered 1, 5 and 8 with mean of 4.55, 4.57 and 4.64 shows that three out of the 10 listed ICTs skills of OTM students serve as a very high solution to Nigerian economic challenge of unemployment. Items numbered 2, 3, 4, 6, and 7 with means of 3.64, 3.68, 3.53, 3.70 and 3.62 indicated ICTs skills of OTM students serve as a high solution to Nigerian economic challenge of unemployment. Items numbered 9 and 10 with mean of 3.30 and 3.44 indicated that ICTs skills of OTM students serve as a moderate solution to Nigerian economic challenge of unemployment.

The cluster mean score of 3.86 shows that ICTs skills of OTM students serve as a high solution to Nigerian economic challenge of unemployment. Standard deviations for all the items are within the same range of .31 to .56 showing that the respondents are not wide apart in their opinions on how ICTs skills of OTM students serve as a solution to Nigerian economic challenge of unemployment.

Research Question 2: *How does problem-solving skills of OTM students serve as solution to Nigerian economic challenge of poverty?*

Table 2: Respondents mean ratings on how problem-solving skills of OTM students serve as solution to Nigerian economic challenge of poverty

(n=135)				
S/N	Problem-solving skills	\bar{X}	SD	Remarks
1	Ability to identify a problem	4.51	.67	Very High Solution
2	Ability to plan solution to the problem	4.07	.84	High Solution
3	Ability to evaluate alternative solutions to the problem	4.11	.89	High Solution
4	Ability to implement the solutions	4.46	.87	High Solution
5	Ability to check the result and communicate effectively	4.42	.77	High Solution
6	Ability to show independence in solving a project task	4.56	.86	Very High Solution
7	Ability to show initiative in solving project task	4.53	.81	Very High Solution
8	Ability to resolve customer concerns in relation to complex project issues	4.45	.69	High Solution
9	Ability to know one's strengths when planning for solution to a problem	4.69	.81	Very High Solution
Grand Mean		3.98		High Solution

Table 2 shows that 4 of the 9 problem-solving skills listed have mean scores ranged between 4.51 and 4.69 which mean problem-solving skills of OTM students serve as very high solution to Nigerian economic challenge of poverty. The remaining five problem-solving skills have mean scores ranged between 4.07 and 4.46, which indicate that problem-solving skills of OTM students serve as high solution to Nigerian economic challenge of poverty. The grand mean score of 3.98 shows that overall, problem-solving skills of OTM students serve as high solution to Nigerian economic challenge of poverty. The standard deviations for all the items are within .67 to .89. This shows that the respondents are not wide apart in their opinions concerning problem-solving skills of OTM students as a solution to Nigerian economic challenge of poverty.

Testing of Null Hypotheses

Hypothesis 1

Male and female OTM students do not differ significantly in mean ratings on how their ICTs skills serve as solution to Nigerian economic challenge of unemployment.

Table 3: Summary of computed t-test of male and female students on how ICTs skills of OTM students serve as solution to Nigerian economic challenge of unemployment

Gender	N	\bar{X}	SD	df	t-value	p-value	Decision
Male	51	26.99	3.85	133	.11	.13	Not Significant
Female	84	27.21	3.78				

Table 4 shows that t - value of .11 at 133 degree of freedom with p-value of .13 is greater than the significant value of .05 (.13 > .05). This means that male and female respondents do not differ significantly in their mean ratings on how ICTs skills of OTM students serve as solution to Nigerian economic challenge of unemployment. Therefore, the null hypothesis was accepted since the p-value of .13 is greater than the significant value of .05 (.13 > .05).

Hypothesis 2

There is no significant difference in the mean ratings of male and female students on how problem-solving skills of OTM students serve as solution to Nigerian economic challenge of poverty

Table 4: Summary of computed t-test of male and female students on how problem-solving skills of OTM students serve as solution to Nigerian economic challenge of poverty

Gender	N	\bar{X}	SD	df	t-value	p-value	Decision
Male	51	26.97	3.60	133	.10	.12	Not Significant
Female	84	27.01	3.58				

Table 3 shows that t - value of .10 at 133 degree of freedom with p-value of .12 is greater than the significant value of .05 (.12 > .05). This means that male and female respondents do not differ significantly in their mean ratings on how problem-solving skills of OTM students serve as solution to Nigerian economic challenge of poverty, Therefore, the null hypothesis was accepted since the p-value of .12 is greater than the significant value of .05 (.12 > .05).

DISCUSSION OF FINDINGS

How ICTs skills of OTM students serve as solution to Nigerian economic challenge of unemployment

Table 1 analyzed data showed ICTs skills of OTM students serve as a high solution to Nigerian economic challenge of unemployment. Findings of the study revealed that ICTs skills of OTM students serve as a high solution to Nigerian economic challenge of unemployment.

This finding supports the earlier findings Okoye (2017) reported that ICT competencies are required by business graduates for effective and successful entrepreneurial practice to create employment and solve Nigeria economic challenge of unemployment. Abanyam (2014) also disclosed that today’s business environment demand that business-related students acquire ICT competencies to enable them compete favourably with other in the global labour market. Also, the finding agrees with Eytayo (2012) who revealed that business-related students needed ICT competencies for self-employment upon graduation. Akpotohwo, Watchman and Ogeibiri (2016) in agreement reported that business education students needed entrepreneurial competencies such as ICT for effective business operation. Akpotohwo, Watchman and Ogeibiri argued that lack or absence of these competencies affects graduates in embarking on any business venture. Furthermore, the finding revealed that gender was not a significant factor on the views of respondents on how ICTs skills of OTM students serve as high solution to Nigerian economic challenge of employment.

The findings could be attributed to the fact that both male and female OTM students are aware of the importance of ICTs skills to generate employment and wealth creation that reduce unemployment as Nigeria economic challenge.

How problem-solving skills of OTM students serve as high solution to Nigerian economic challenge of poverty

Table 2 analyzed data showed that problem-solving skills of OTM students serve as high solution to Nigerian economic challenge of poverty. Findings showed that problem-solving skills of OTM students create wealth and reduce poverty. The finding of this study is in line the findings of Ann-Marie (2015) which showed that students and employers consider problem solving skills as important employability skills. Kar (2011) discovered that Harris problem solving skills were the second highest ranked soft skills that technology students needed for successful postsecondary level, as these skills are integral to careers in different occupations for wealth creation.

Employers of labour desired OTM graduates to possess problem-solving skills as a pre-requisite for gainful employment in establishments and organizations. The findings also showed that gender was not a significant factor on the views of respondents on how problem-solving skills of OTM students serve as high solution to Nigerian economic challenge of poverty. The findings could be attributed to the fact that

both male and female OTM students are aware of the importance of problem-solving skills to the employment and wealth creation that reduce poverty as Nigeria economic challenge.

Summary of Findings

Findings of the study are summarized as follows:

1. ICTs skills of OTM students serve as a high solution to Nigerian economic challenge of unemployment.
2. Problem-solving skills of OTM students serve as high solution to Nigerian economic challenge of poverty through generating employment for wealth creation
3. Gender was not a significant factor on the views of respondents on how ICTs skills of OTM students serve as high solution to Nigerian economic challenge of employment. This maybe because both male and female OTM students are aware of the importance of ICTs skills to generate employment and wealth creation that reduce unemployment as Nigeria economic challenge
4. Gender was not a significant factor on the views of respondents on how problem-solving skills of OTM students serve as high solution to Nigerian economic challenge of poverty. This may also be because both male and female OTM students are aware of the importance of problem-solving skills to the employment and wealth creation that reduce poverty as Nigeria economic challenge.

CONCLUSION

From the summary of the findings of this study it was concluded that ICTs skills and problem-solving skills of OTM students serve as high solution to Nigerian economic challenge of unemployment and poverty through generating employment for wealth creation. Also, gender was not a significant factor on how ICTs skills and problem-solving skills of OTM students serve as high solution to Nigerian economic challenges of unemployment and poverty by creating employment and wealth via the soft skills of ICT and problem-solving skills.

Based on the findings of this study, the following recommendations are made:

1. OTM lecturers should lay more emphasis on practical by giving students ICTs and problems to solve and taking them to field trips to industries to gain firsthand experience of how job functions are performed. This will give them added advantage in the labour market world when they embark the search for jobs.
2. OTM department in polytechnic should collaborate more with industries to support OTM programme through continuous industrial training activities and encourage industrial work scheme to sharpen soft skills of their students for success in the labour market.
3. Curriculum planners should review the current OTM curriculum so as to incorporate soft skills in the curriculum. This will improve the teaching of the skills to students which will better prepare them for successful employment on graduation.
4. Government of Rivers State should provide funds for the retraining of business educators in form of in-service training, sponsorship to conferences and workshops, procurement of equipment and machines among others for effective teaching of non-technical skills required by students for success in the labour market upon graduation.

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Appendix A

Population Distribution of ND/HND OTM Students in State Owned Polytechnics in Rivers State

S/N	Institutions	No of Students	Total
1	Captain Amadi Elechi Polytechnic	ND 2 Stream A = 85 Stream B = 105	190
2	Ken Saro-Wiwa Polytechnic, Bori	HND 1= 130 HND 2 = 150	280
Grand Total			470

APPENDIX B

Sample Size Distribution of ND/ HND OTM Students in State Owned Polytechnics in Rivers State

S/N	Institutions	No of Students	30% of the total population
1	Captain Amadi Elechi Polytechnic	ND 2 Stream A = 85 Stream B = 105	57
2	Ken Saro-Wiwa Polytechnic, Bori	HND 1= 130 HND 2 = 150	84
Total			141